Studies on Mikania (Compositae)-XV

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The present paper describes three new species of <u>Mikania</u> (tribe Eupatorieae) from Colombia and is preliminary to a general treatment of the genus for that country. The most recent treatment of the genus for Colombia is that of Robinson (Contr. Gray Herb. 64:21-116. 1922), a work in which 32 species are recognized. Presently, over 60 species of Mikania are known to occur there (Holmes in prep.).

Mikania cuatrecasasii W.Holmes, sp. nov. (fig. 1).

Suffrutex volubilis; foliis ellipticis vel ovato-ellipticis, 10-17 x 2.7-5 cm, apice acuminatis, basi attenuatis, marginibus integris. Capitulescentiis corymbosis. Capitulis 7-8 mm longis. Corollis 4.3-4.7 mm longis, dentibus limbi lanceolatis, 1-1.3 mm longis. Pappis setis 30-35, ca. 5 mm longis. Achaenis ca. 1.5 mm longis.

Twining vine. Stems terete, costate, glabrate, pithy; internodes to 23 cm or more long. Leaf blades elliptic to ovate-elliptic, 10-17 x 2.7-5 cm, subpinnately 5-nervate, the first pair of nerves rather obscure, originating at the very base of the blade, arching forward and somewhat parallel to the margins, the second pair originating within 1.5-2 cm of the base, more conspicuous than the first pair, imparting a trinervate appearance, arching forward parallel to the margins, and extending nearly to the apex; the tertiary veinlets forming a somewhat obscure, slightly antrorse disposed pattern; apices acuminate; margins entire; bases attenuate; surfaces glabrous; petioles 1-1.5 mm long, glabrous. Capitulescence a trichotomously branching corymb, both axillary and terminal, ca. 10 x 11 cm; branchlets striate, glabrate to puberulent; bracts narrowly elliptic, 1-2 cm long, petiolate, similar to cauline leaves but reduced in size. Heads 7-8 mm long, sessile, ternately disposed; subinvolucral bracts ovate, 1-1.5 mm long, glabrous, apices acute, hispid, those of the outer pair of heads (of the sessile groups of threes) borne at the very base of the involucre, those of the center head borne slightly separated from the involucre. Phyllaries oblongelliptic, ca. 7.2 mm long, glabrous, apices rounded, hispid, bases Slightly swollen. Corollas (immature) white, 4.3-4.7 mm long; tube 1.7-2 mm long; throat tubular, 1-1.5 mm long; teeth lanceolate, 1-1.3 mm long. Pappus bristles white, 35-40, ca. 5 mm long, apices slightly thickened, margins scabrid. Achenes (immature) ca. 1.5 mm long.

TYPE: Colombia, Del Valle, Costa del Pacífico, río Yurumangui, El Papayo, bosques, 10-100 m, 5 Feb 1944, <u>Cuatrecasas 15995</u> (holotype: F; isotypes: COL, F). Paratype: Colombia. Chocó: carretera QuibdóGuayabal, Duata, margen derecha de río Duata, 40 m, 27 Apr 1975, Forero, Jaramillo, <u>& McElroy 1261</u> (COL).

<u>Mikania cuatrecasasii</u> is characterized by its trichotomously branching corymbs with ternately disposed sessile heads. The capitulescence indicates affinities with the <u>Mikania parviflora</u> (Aubl.) Karst. alliance (Robinson, Contr. Gray Herb. 64:3-21.1922). Most species in this group have much broader leaves than the species described above. <u>Mikania cuatrecasasii</u> appears to be the only member of the group with narrow leaves that has corolla teeth about the same length as the throat.

Mikania longicarpa W. Holmes, sp. nov. (fig. 2).

Suffrutex volubilis. Foliis ovatis, $5-9 \ge 3-4.3$ cm, apice acutis vel acuminatis, basi rotundis, marginibus integris. Capitulescentiis paniculis, $4-15 \ge 9-25$ cm. Capitulis ca. 10 mm longis. Corollis ca. 4 mm longis, dentibus limbi deltatis, 0.7 - 1 mm longis. Pappi setis 30-35, ca. 4.5 mm longis, scabridis. Achaenis 4-5 mm longis.

Semiwoody twining liana. Stems terete, striate, glabrate. Leaves ovate, 5-9 x 3-4.3 cm; apices acute to acuminate, margins entire, bases rounded to acute; pinnately veined; above glabrous, the nerves impressed, below glabrate, reticulate, the nerves and veinlets exserted from the surface; petioles 1-2 cm long, glabrous. Capitulescence a panicle; 4-15 cm wide and 9-25 cm or more long; heads mostly clustered toward the tips of the branchlets in a (roughly) racemose pattern; branchlets striate, puberulent; ultimate branchlets 1-2 mm long, puberulent. Heads ca. 10 mm long; subinvolucral bracts linear-oblong, 2-3.5 mm long, glabrous, apices acute, borne slightly to well beneath the involucre. Phyllaries linear-oblong, 7-8 mm long, glabrous, striate, apices acute (often rounded in the immature state), slightly puberulent. Corollas ca. 4 mm long; tube 1.3 mm long; throat campanulate at anthesis, 1.7-2 mm long; teeth deltate, 0.7-1 mm long, slightly puberulent. Pappus bristles white, 30-35, 4.5 mm long, margins scabrid, apices slightly thickened. Achenes 4-5 mm long, dark brown, glabrate to sparingly pilose.

TYPE: Colombia, Boyacá, Tota, 2800 m, Dec 1951, <u>Yepes-Agredo 3327</u> (holotype: COL). Paratypes: Colombia. Boyacá: Municipio de Tunja-Santuario de Iquaque, 30 Aug 1979, <u>Michael 528</u> (COL); Cundinamarca: Municipio de Junín, Parama de Guasca, 3200-3300 m, 9 Nov 1979, <u>Diaz</u> <u>1713</u> (COL); La Vega - Fucatativa Highway, along stream at 2700 m, 5 Sep 1947, <u>Haught 6152</u> (COL); Municipio de Boyacá, Vereda de San Antonio - "La Merced," proximo a la carretera Mosquera - Tena, 2500-2700 m, 6 Oct 1964, <u>Lozano & Torres 166</u> (COL).

The new species appears to be related to <u>Mikania</u> <u>lehmannii</u> Hieron., also of Colombia. That species is distinguished from <u>Mikania</u> <u>longicarpa</u> by its more corymbosely disposed panicle composed

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of strictly sessile heads.

Mikania tristachya W. Holmes, sp. nov. (fig. 3).

Suffrutex volubilis; foliis verticillatis ovatis, ad 9 x 4 cm, apice acuminatis, basi rotundis, marginibus integris. Capitulescentiis spicato-glomeratis. Capitulis 6-6.5 mm longis. Corollis ca. 3 mm longis, dentibus limbi lance-ovatis, ca. 0.75 mm longis. Pappi setis 33-37, ca. 3.3 mm longis, scabridis. Achaenis ca. 2.6 mm longis.

Slender twining vine. Stems sulcate, glabrous, fistulose. Leaves verticillate (3 at a node), blades ovate, ca. 9 x 4 cm, pinnately nerved with two pairs of secondary nerves originating in the basal one-third of the blade, these arching forward and generally parallel to the margins; apices acuminate; margins entire; bases rounded; upper surfaces glabrous, tertiary nerves rather prominent, forming a slightly antrorse disposed pattern, veinlets reticulate, exserted brom the surface; lower surfaces glabrous, veinlets more prominently reticulated than above; petioles ca. 1 cm long, glabrate, flattened above. Capitulescence a terminal and lateral panicle, ca. 4 x 3 cm, branching trichotomously, borne on puberulent peduncles of up to 10 cm long, these shortened upwards; heads sessile, clustered in spicate glomerules ca. 1-1.5 cm long; bracts similar to cauline leaves but reduced in size. Heads 6-6.5 mm long; subinvolucral bracts narrowly ovate, 2-2.5 mm long; phyllaries elliptic-oblong, ca. 5.5 mm long, glabrous, apices obtuse to rounded, bases slightly swollen. Corollas ca. 3 mm long; tube ca. 1.5 mm long; throat semicampanulate, ca. 0.75 mm long; teeth lanceovate, ca. 0.75 mm long. Pappus bristles white, 33-37, ca. 3.3 mm long, apices slightly enlarged, margins scabrid. Achenes ca. 2.6 mm long, dark brown to blackish, angles white.

Type: Colombia, La Guajira, forest, 12 km south of Carraipía, 450 m, 31 Jul 1944, Haught 4281 (holotype: US; isotype: COL).

The new species is characterized by its verticillate leaves and long pedunculate capitulescence with the heads borne in spicate glomerules. The nature of the capitulescence indicates affinity to <u>Mikania hookeriana</u> DC., a species with opposite leaves having more palmate nervation and phyllaries with very conspicuously swollen bases.

The only other Colombina <u>Mikania</u> known to have spicately disposed heads and verticillate leaves is <u>M. simpsonii</u> W.Holmes & McDaniel, a species originally described from Peru. It is distinguished by the heads being remotely spaced on the rachis of the spikes.

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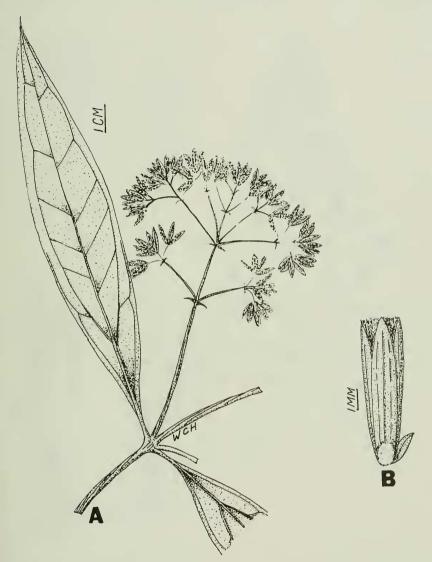


Fig. 1. <u>Mikania cuatrecasasii</u> W. Holmes. A. habit (leaf and capitulescence; b. capitulum.

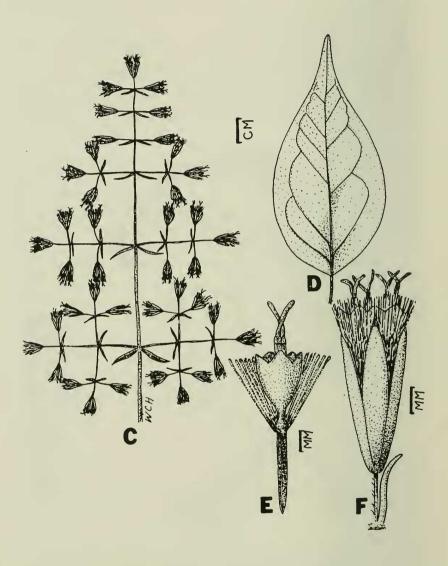


Fig. 2. <u>Mikania longicarpa</u> W. Holmes. C. capitulescence; D. leaf; E. flower and achene; F. capitulum.

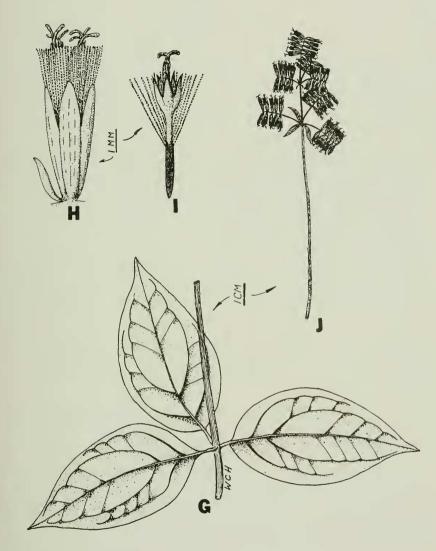


Fig. 3. <u>Mikania tristachya</u> W. Holmes. G. leaves and stem; H. capitulum; I. flower and achene; J. capitulescence.